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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/803,274	03/18/2004	Eiji Kato	FY.51043US1A	5373

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KNOBBE MARTENS OLSON & BEAR LLP
2040 MAIN STREET
FOURTEENTH FLOOR
IRVINE, CA 92614

EXAMINER	
PHAN, HAU VAN	

ART UNIT	PAPER NUMBER
3618	

NOTIFICATION DATE	DELIVERY MODE
09/10/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

jcartee@kmob.com
eOAPilot@kmob.com

Office Action Summary	Application No.	Applicant(s)	
	10/803,274	KATO ET AL.	
	Examiner	Art Unit	
	Hau V. Phan	3618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *02 July 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-23* is/are pending in the application.

4a) Of the above claim(s) *3,5,6,9 and 17* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,2,4,7,8,10-16 and 18-43* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *7/2/2007*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Acknowledgment

1. The amendment filed on 7/9/2007 has been considered.

2. The request for continues of examination filed on 7/9/2007 has been entered.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 22-23 and 36-42 are rejected under 35 U.S.C. 102(b) as being anticipated by Mizuta et al. (5,086,858).

Regarding claim 22, Mizuta et al. disclose an off-road vehicle comprising a frame, a plurality of wheels arranged to support the frame, an internal combustion engine having a crankshaft configured to rotate. Mizuta et al. also disclose a transmission arranged to transmit the rotation of the crankshaft to at least one of the wheels, a housing configured to house at least a portion of the transmission. The housing has an air inlet duct through which ambient air enters the housing and an air outlet duct through which the air leaves the housing. The air inlet duct has an inlet opening. The air outlet duct has an outlet opening, and a seat defining a sitting surface on which a driver or passenger of the vehicle sits. The inlet opening is being positioned

at generally the same elevation as or higher than the sitting surface. The outlet opening is being positioned generally close to the elevation of the sitting surface.

Regarding claim 23, Mizuta et al. disclose the sitting surface that is positioned higher than the wheels.

Regarding claim 36, Mizuta et al. in figures 1-5, disclose an off-road vehicle comprising a frame, at least a first seat (6) supported by the frame, a plurality of wheels (2, 3) arranged to support the frame, an internal combustion engine (8) having a crankshaft (18) configured to rotate, a transmission (12) having an output shaft on the left side (not number, figure 2) arranged to transmit the rotation of the crankshaft to at least one of the wheels, and a housing (19, 20) configured to house at least a portion of the transmission. The housing has an air inlet duct (23) through which ambient air enters the housing and an air outlet duct (24) through which the air leaves the housing. The air inlet duct has an inlet opening, the outlet duct having an outlet opening, the inlet and outlet openings positioned higher than the wheels, and wherein at least a portion of the outlet duct is disposed under the seat.

Regarding claim 37, Mizuta et al. disclose the outlet duct extending upwardly from a forward portion of the transmission, then rearwardly over the housing and below the seat.

Regarding claim 38, Mizuta et al. disclose an outlet end of the outlet duct, which is disposed rearward of a forward-most edge of the seat.

Regarding claim 39, Mizuta et al. disclose an upstream portion of the outlet duct having a first cross-sectional shape and a down stream portion of the outlet duct that

is disposed below the seat has a second cross-sectional shape different from the first cross-sectional shape.

Regarding claim 40, Mizuta et al. disclose the second cross sectional shape, which is larger in a horizontal dimension than that of the first cross-sectional shape.

Regarding claim 41, Mizuta et al. disclose an upstream portion of the outlet duct, which is disposed forward of the forward-most edge of the seat and a downstream portion of the outlet duct is disposed rearwardly from the forward-most edge of the seat.

Regarding claim 37, Mizuta et al. disclose the inlet and outlet ducts, which are arranged to guide atmospheric air through the inlet duct and into the housing such that the atmospheric air passes over and thereby cools the portion of the transmission and then exits the housing through the outlet duct.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 1-2, 4, 7-8, 10-16, 18-21 and 24-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mizuta et al. (5,086,858) in view of Wagner et al. (6,729,830).

Mizuta et al. in figures 1-5, disclose an off-road vehicle comprising a frame, a plurality of wheels (2, 3) arranged to support the frame, an internal combustion engine

(8) having a crankshaft (18) configured to rotate. Mizuta et al. also disclose a transmission (12) having an output shaft on the left side (not number) arranged to transmit the rotation of the crankshaft to at least one of the wheels. Mizuta et al. also disclose a housing or a chamber (19, 20) configured to house at least a portion of the transmission (the output shaft can be considered a portion of the transmission). The housing has an air inlet duct (22) through which ambient air enters the housing and flows across the portion of the transmission and an air outlet duct (24) through which the air leaves the housing. The air inlet duct has an inlet opening (23). The outlet duct has an outlet opening, the inlet and outlet openings positioned higher than the wheels. Mizuta et al. fail to show first and second seats and the engine located between the first and second seats.

Wagner et al. in figure 1-5, teaches a wheeled work machine comprising an operator platform (26) having first and second seats. Wagner et al. also disclose an engine (24), which is located between the first and the second seats. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the off-road vehicle of Mizuta et al. with the wheeled work machine having first and second seats as taught by Wagner et al. in order to have a ability to carry more than one person to a work site.

Regarding claim 2, Mizuta et al. disclose a seat (6) that defines a surface .onto which a driver or passenger of the vehicle sits. The seat surface positioned higher than the wheels and the outlet opening being positioned at an elevation close to an elevation of the seat surface.

Regarding claim 4, Mizuta et al. disclose a seat (6) that defines a surface onto which a driver or passenger of the vehicle sits. The seat surface positioned higher than the wheels, and a portion of the outlet duct extending next to the seat.

Regarding claim 7, Mizuta et al. disclose another portion of the outlet duct extending upwardly along at least a front section of the housing at a location not more than just forward of the seat.

Regarding claim 10, Mizuta et al. in combination with Wagner et al. disclose each one of the seat assemblies comprising a seat and a pedestal configured to support the seat, the portion of the outlet duct extends along one of the seats and has a configuration corresponding to a configuration of the seat.

Regarding claim 11, Mizuta et al. disclose the housing at least in part that is positioned between the seat assemblies.

Regarding claim 12, Mizuta et al. disclose a seat (6) that defines a surface on which a driver or passenger of the vehicle sits. The surface being positioned higher than the wheels, and the inlet opening being positioned at generally the same elevation as the surface or at a location higher than the surface.

Regarding claim 13, Mizuta et al. disclose a seat unit, the inlet opening is positioned at a location generally behind the seat unit.

Regarding claim 14, Mizuta et al. disclose a seat unit. The seat unit defines a surface on which a driver or passenger of the vehicle sits. The seat unit also includes a seat back against which the driver or passenger leans. The seat back having a top, the

inlet opening of the air inlet duct being positioned at a location higher than the surface and lower than the top of the seat back.

Regarding claim 16, Mizuta et al. disclose the inlet opening that is faces forward.

Regarding claim 18, Mizuta et al. disclose the transmission comprising a belt-transmission mechanism, and the housing houses the belt-transmission mechanism.

Regarding claim 19, Mizuta et al. disclose the belt transmission mechanism including a drive pulley coupled to the crankshaft, an output shaft, a driven pulley coupled to the output shaft, and a belt extending around the drive and driven pulleys.

Regarding claim 20, Mizuta et al. disclose at least one of the inlet and outlet ducts, which is a member formed separately from the housing and is coupled to the housing.

Regarding claim 24, Mizuta et al. disclose at least a portion of the air outlet duct extends at about the same height as a cylinder of the engine.

Regarding claim 25, Mizuta et al. in combination with Wagner et al. disclose at least a portion of the air outlet duct that overlaps with a portion of at least one of the fist and second seats, as viewed in a plan view.

Regarding claim 26, Mizuta et al. disclose at least a portion of the air outlet duct extending over the chamber or the housing.

Regarding claim 27, Mizuta et al. disclose at least a portion of the air inlet duct that overlaps with a cylinder block of the engine, when viewed in a side elevational view.

Regarding claim 28, Mizuta et al. disclose the inlet and outlet openings that are disposed higher than the housing.

Regarding claim 29, Mizuta et al. disclose at least a portion of the air inlet duct, which is positioned lower than the upper most surface of the wheels.

Regarding claim 30, Mizuta et al. disclose at least a portion of the air outlet duct extending at about the same height as a cylinder of the engine.

Regarding claim 31, Mizuta et al. in combination with Wagner et al. disclose at least a portion of the air outlet duct overlapping with a portion of at least one of the fist and second seats, as viewed in a plan view.

Regarding claim 32, Mizuta et al. disclose at least a portion of the air outlet duct extending over the chamber.

Regarding claim 33, Mizuta et al. disclose at least a portion of the air inlet duct overlapping with a cylinder block of the engine, when viewed in a side elevational view.

Regarding claim 34, Mizuta et al. disclose the inlet and outlet openings, which are disposed higher than the chamber.

Regarding claim 35, Mizuta et al. disclose at least a portion of the air inlet duct, which is positioned lower than the upper most surface of the wheels.

7. Claim 43 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mizuta et al. (5,086,858) as applied to claim 42 above, and further in view of Wagner et al. (6,729,830).

Mizuta et al. disclose the seat, but fail to show a second seat.

Wagner et al. in figure 1-5, teaches a wheeled work machine comprising an operator platform (26) having first and second seats. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the off-road

vehicle of Mizuta et al. with the wheeled work machine having first and second seats as taught by Wagner et al. in order to have a ability to carry more than one person to a work site.

Response to Arguments

8. Applicant's arguments with respect to claims 1-2, 4, 7-8, 10-16, 18-43 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hau V. Phan whose telephone number is 571-272-6696. The examiner can normally be reached on 7:30AM-4:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris Ellis can be reached on 571-272-6914. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Hau V Phan
Primary Examiner
Art Unit 3618

8/27/07